

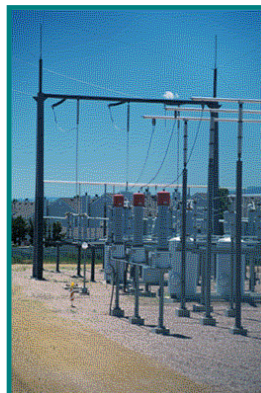
POWER GENERATION SECTOR: CO₂ EMISSION STANDARDS

◆ OREGON

CO₂ Emission Standards for New Power Plants

In June 1997, the state of Oregon adopted into law a CO₂ standard for new energy facilities. The legislation authorizes the state's Energy Facility Siting Council to set CO₂ standards for base load natural gas plants, non-base load power plants (all fuels), and non-generating energy facilities (all fuels). Pursuant to the legislation, the Council set up the rules to implement the standard in March of 1999.

For generating plants (both base load and non-base load), the Council set the initial standard at a net rate of 0.7 pounds of CO₂ per kWh, which is 17% below the emissions of the most efficient plants currently available. For non-generating facilities, the rate is 0.522 pounds of CO₂ per horsepower-hour. In order to strike a balance between the CO₂ standard and the cost to developers, the standard cannot add more than 1.8% to the cost of a new power plant. Compliance with the CO₂ standard may be met through plant efficiency improvements, co-generation, and offset projects (e.g., tree planting). Furthermore, it is possible to meet the standard by paying a fee (\$0.57 per ton of CO₂, plus administrative costs) to an offset projects fund (this approach is referred to as the "monetary path"). Funds from the monetary path are then used to finance offset projects implemented by qualified independent organizations.



Results:

Thus far, three new power plant projects have provided strategies for meeting the new CO₂ standard. The project strategies described here represent projected emissions and offsets over a 30-year period. Construction and offsets are expected to begin in the summer of 1999.

The Hermiston Power Project is expected to have gross CO₂ emissions (i.e., over 30 years) of 50.2 million metric tons (MMT) (13.7 MMTCE). The CO₂ standard offsets required for this project are 5.5 MMT CO₂ (1.5 MMTCE) and will be met through a monetary path offset value of \$3.6 million. The Coyote Springs Cogeneration Project is expected to have gross CO₂ emissions of 22.7 MMT (6.2 MMTCE), which requires an offset of 3.7 MMT CO₂ (1.0 MMTCE) with a monetary path offset value of \$2.5 million. Lastly, the Klamath Cogeneration Project is expected to have gross CO₂ emissions of 44 MMT (12.0 MMTCE). Total offsets required are 12.2 MMT (3.3 MMTCE), which will be met through 4.1 MMT (0.97 MMTCE) in cogeneration offsets, 6.5 MMT (1.5 MMTCE) in project offsets, and 1.7 MMT (0.46 MMTCE) in monetary path offsets. The monetary path offset value is \$1.0 million and the total offset project costs are \$6.1 million. Annually, these three projects represent emission reductions of approximately 194,500 MTCE*.

Greenhouse Gas Reductions

194,500 MTCE*/yr
(total for three projects)

Principal Actors:

The Oregon Carbon Dioxide Emission Standards were instituted by the Oregon Energy Facility Siting Council. The rules apply to all new power plants in Oregon and will be enforced by the Oregon Office of Energy. Offset projects funded through the monetary path are implemented by independent non-profit organizations, such as the Oregon Climate Trust.

Additional Information:

Sam Sadler, Oregon Office of Energy, 503-373-1034, samuel.r.sadler@state.or.us; Gabriela Goldfarb, Oregon Climate Trust, 503-233-7040, goldfarb@climatetrust.org. The siting bill and the *Report of the Oregon Energy Facility Siting Task Force* are available at: <http://www.cbs.state.or.us/external/ooe/nucsafe/facility.htm>.

This case study is based on information provided by Sam Sadler, Oregon Office of Energy.

* Original data have been converted from metric tons of CO₂ to Metric Tons of Carbon Equivalent (MTCE).

Sam Sadler, Oregon Office of Energy, 503-373-1034, samuel.r.sadler@state.or.us; Gabriela Goldfarb, Oregon Climate Trust, 503-233-7040, goldfarb@climatetrust.org. The siting bill and the *Report of the Oregon Energy Facility Siting Task Force* are available at: <http://www.cbs.state.or.us/external/ooe/nucsafe/facility.htm>.

This case study is based on information provided by Sam Sadler, Oregon Office of Energy.

* Original data have been converted from metric tons of CO₂ to Metric Tons of Carbon Equivalent (MTCE).